

Life Cycle Plan (LCP)

< LEMA Pilot School Integrated Family Accountability System >



PROJECT TITLE

LEMA FAMILY ACCOUNTABILITY SYSTEM

TEAM NO

#04

TEAM MEMBERS & ROLES

NAME	ROLES
Teawon Han	Project Manager
Zhen Huang	Feasibility Analyst
Ziming Wei	Operational Concept Engineer
Xiali Ma	Life Cycle Planner
Ian Williams	Requirements Engineer
Kimberly Krause	IIV&V / System Requirements Engineer

<09/30/2011>

Version History

Date	Author	Version	Changes made	Rationale
09/28/11	Teawon Han / Xiali Ma / Ziming Wei	1.1	Denote skills of each roles in Responsibility section	Initial draft for use with Project detail plan (who does what)
09/30/11	Teawon Han	1.2	<ul style="list-style-type: none">Review format of document and update history section.	<ul style="list-style-type: none">Update report format by using consistence terms and expressions.
10/05/11	Xiaoli Ma	1.3	Review format of document and update history sections.	Update report format by document of the project
			<ul style="list-style-type: none">	
			<ul style="list-style-type: none">	<ul style="list-style-type: none">

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1. Introduction

1.1 Purpose of the LCP

Life cycle plan is a document to record and predict process of development. Basically, this artifact organizes answers to the most common questions about a project or activity: why? Whereas? What? When? Who? Where? How and how much? All these should be planned and recorded in the LCP.

➤ **Management:**

- In the spiral model, development iterations are important to keep whole process moving forward. To guarantee the success, we need to identify milestone in order to make risk assessment and management and list the tasks to be performed, the product to be produced, dates by which all of these could be finished.
- In each phase, every role in the team should be responsible for artifacts and tasks. Team members' skills, tasks, responsibilities must be identified in the LCP previously.
- Estimate project effort and schedule using COCOMO for next phase.
- As project evolves, there might be some changes to the resources or milestones of the project. Because of that, we need to re-assess the life cycle plan, make sure it reflects the current project status.

➤ **Plan:**

- To plan for development activities in each iteration.
- To assess what you have planned in the end of the iteration and provide feedback for the next iteration plan.
- To plan tasks within a schedule.

1.2 Status of the LCP

The status of the LCP is currently at the Core FC Package version number 1.3. This is the version that will be delivered to the client. The major changes from the version before are::

- Update the whole sections which need to be completed.
- Modify the sections which has been filled previously.

1.3 Assumptions

- Hold team discussion 1 time every week.
- The duration of the project is 24 weeks, which are 12 weeks in Fall 2011 and 12 weeks in Spring 2012.

2. Milestones and Products

2.1 Overall Strategy

<< Identify your overall strategy. Identify the ICM process you are following and your rationale; Architected Agile or NDI-Intensive or Net-Centric Services. Identify the life cycle phases and its dates, deliverables, milestone and strategy of each phase. The For example:

“The Volunteer Tracking System is following Architected Agile process because there is no Non-Development Item or Web service that would fit to most of the core capabilities.

“Exploration phase

Duration: 08/24/09- 9/21/09

Concept: They identify project operational concept, system and software requirement, system and software architecture, and life-cycle plan. These phases prioritize the capabilities, conduct investment and feasibility analysis, and implement the software prototype.

Deliverables: Valuation Commitment Package

Milestone: Valuation Commitment Review

Strategy: One Incremental Commitment Cycle”

Note: More information about ICM process can be found in ICM EPG> Guideline: Process Decision Table. Schedule of the class and its milestone can be found in the first lecture of the class.

>>

2.2 Project Deliverables

2.2.1 Exploration Phase

Table 1: Artifacts Deliverables in Exploration Phase

Artifact	Due date	Format	Medium
Client Interaction Report	9/17/2006	.doc, .pdf	Soft copy
Valuation Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) Early Section • Life Cycle Plan (LCP) Early Section • Feasibility Evidence Description (FED) Early Section 	09/18/2006	.doc, .pdf	Soft copy
Evaluation of Valuation	09/27/2006	.xls	Soft copy

Commitment Package			
Project Effort	Every Monday	Text	ER system
Project Plan	Every Wednesday	.mpp, .pdf	Soft copy
Progress Report	Every Wednesday	.xls	Soft copy
Risk Analysis	Every Wednesday	Text	DART system

Table 2: Artifact deliverable in Exploration Phase

Artifact	Due date	Format	Medium
<artifact name>	<due data>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...

2.2.2 Valuation Phase

Table 3: Artifact deliverable in Valuation Phase

Artifact	Due date	Format	Medium
<artifact name>	<due date>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...

2.2.3 Foundations Phase

Table 4: Artifact deliverable in Foundations Phase

Artifact	Due date	Format	Medium
<artifact name>	<due date>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...

2.2.4 Development Phase

Table 5: Artifact deliverable in Development Phase

Artifact	Due date	Format	Medium
<artifact name>	<due date>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...

3. Responsibilities

3.1 Project-specific stakeholder's responsibilities

Role	Responsibilities
All Stakeholders	<ul style="list-style-type: none"> • Participate in the WinWin negotiation, weekly meeting, and commitment review • Collaborate and responsible for assigned tasks • Commit to the agreed project progress
Users	<ul style="list-style-type: none"> • Explain current business workflow and context • Express interests or win conditions • Provide project-related information and feedback • Review and test prototypes and the product and provide feedback as appropriate • Test and deploy the product in operational environment
Client	<ul style="list-style-type: none"> • Prepare for site visit, provide support and collaboration to the development team • Articulate win conditions and operation concept • Track system progress • Coordinate with user, maintainer and developer • Provide information and feedback, review and test the product • Test and deploy the product in operational environment • Support system's transition • Receive training for the new system, provide training for regular users
Maintainer	<ul style="list-style-type: none"> • Express interests or win conditions • Provide information and show current system environment • Provide information and feedback, review and test the product • Prepare operational environment • Test and deploy the product in operational environment • Receive training for the new system, provide training for users • Maintain the system
Developer / Builder	<ul style="list-style-type: none"> • Collect all stakeholders' win conditions • Gather all project-related information and transform into requirement specification, operational concepts, and initial architecture • Initiate and complete Win-Win negotiation , all reviews, and weekly meeting • Develop prototype, project plan and investment analysis, • Analyze current system environment, identify project risk, analyze project feasibility and mitigate risks • Update project progress with client • Refine architecture, prototype, and design • Develop and project artifacts to meet milestone requirements • Plan and conduct testing

	<ul style="list-style-type: none"> • Develop the system based on the agreed architecture • Perform system transition, provide training for client and maintainer • Provide product support in operational environment to customer
IIV&V	<ul style="list-style-type: none"> • Facilitate in WinWin negotiation • Ensure the quality of the project • Review and provide feedback to the development team • Plan and conduct testing

3.2 Responsibilities by Phase

<< Identify responsibilities of each team member including client, user, and maintainer in each phase. Please note that a document name such as OCD, SSRD or Prototype is not a responsibility. Examples of responsibilities are identify project risk, develop prototype, acquire NDI, and etc.

The following table is a template for stakeholder's responsibilities in each phase. >>

Table 6: Stakeholder's Responsibilities in each phase

Team Member / Role	Primary / Secondary Responsibility				
	Exploration	Valuation	Foundations	Development-Construction Iteration	Development-Transition Iteration
Name: Teawon Han/ Project Manager	Primary Responsibility 1.Detail and record project plan 2.Assess and Plans to Mitigate Risks Secondary Responsibility 1. Assign tasks and resource to developers Track clients' notes	Primary Responsibility 1. Explore NDI components 2. Detail and record project plan 3. Assess and plans to mitigate risks 4. Provide FED Secondary Responsibility 1. Assign tasks and resource to developers 2. Track clients' notes Give response to Evaluation	Primary Responsibility 1.Assess Feasibility Evidence 2.Detail and record project plan Secondary Responsibility 1.Assign tasks and resource to developers 2.Give response to Evaluation	Primary Responsibility Responsibility 1 Responsibility 2 Secondary Responsibility Responsibility 3 Responsibility 4	Primary Responsibility Responsibility 1 Responsibility 2 Secondary Responsibility Responsibility 3 Responsibility 4

Name: Zhen Huang/ Feasibility Analyst	Primary Responsibility Responsibility 1 Responsibility 2 Secondary Responsibility Responsibility 3 Responsibility 4				
Name: Ziming Wei/ Operational Concept Engineer	Primary Responsibility 1. Analyze current system 2. Identify operational concepts. Secondary Responsibility Assess risks	Primary Responsibility 1. Identify OC&P 2. Define Operational Concepts in LADOT intranet, OCD 3. Explore NDI components Secondary Responsibility 2. Assess risks Give response to Evaluation	Primary Responsibility 1. Analyze and Assess NDI 2. Secondary Responsibility 1. Give response to Evaluation		
Name: Xiali Ma/ Life Cycle Planner	Primary Responsibility 1. Identify Responsibilities and Skills 2. Analyze current system Secondary Responsibility 1. Detail Project Plan Update Wikiwinwin	Primary Responsibility 1. Plan for project life cycle, LCP 2. Set up WinWin negotiation context Secondary Responsibility 1. Detail project plan Give response to Evaluation	Primary Responsibility 1. Assess Life Cycle Content 2. Estimate resource and effort Secondary Responsibility 1. Detail project plan Give response to Evaluation		
Name: Ian Williams/ Requirements Engineer	Primary Responsibility 1. Analyze current system 2. Analyze requirements Secondary Responsibility Assess risks	Primary Responsibility 1. Analyze win conditions Secondary Responsibility 1. Assess risks 2. Update Wikiwinwin	Primary Responsibility 1. Detail Product Requirements Secondary Responsibility 1. Assess risks 2. Track client's feedback Update Wikiwinwin		
Name: Kimberly	Primary Responsibility 1. Facilitate	Primary Responsibility 1. Verify and	Primary Responsibility 1. Evaluate work		

Krause/ IIV&V / System Requirements Engineer	winwin negotiation Secondary Responsibility Assess risk	validate work products 2. Report artifacts review Secondary Responsibility Assess risks	products Secondary Responsibility 1.Assess risks		
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3.3 Skills

Table 3.3 contains each of the roles in the LEMA project, the team member that will be fulfilling that role, and the skills that are necessary to be successful in that role.

Team members	Role	Skills
Teawon Han (577a)	Project Manager / Tester	<ul style="list-style-type: none"> - Construction of detail project plan - Systematical check up progress well - Configuration management - Investment analysis - MS project (expert) - Keep in touch with client to share current project status
New member (577b)		
Zhen Huang(577a/b)	Feasibility Analyst	<ul style="list-style-type: none"> - Analyze feasibility evidence - Understand system architecture and process well - Assess and evaluate NDI / Services (candidate) <ul style="list-style-type: none"> : should know what kind of services can be used for project : should know Hardware / Software information well - Analyze what benefits can be occurred by our project well
Ziming Wei (577a)	Operational Concept Engineer	<ul style="list-style-type: none"> - Analyze currently software systems - Establish new operational concept, be able to know what operational concept should be needed for project - Identify objectives, constraints, and priorities skill for finding constraints, and needed objectives for project
New member (577b)	Programmer	<ul style="list-style-type: none"> - Expert in PHP, MYSQL - Familiar with Linux system

		- Server management skill
Xiaoli Ma (577a)	Lifecycle Planner	<ul style="list-style-type: none"> - Coordinate the team of individuals - Understand exactly who should do what in each process - Able to use COCOMO tool - Analyze responsibilities of each role in each phase
New member (577b)	Programmer	<ul style="list-style-type: none"> - Expert in PHP, MYSQL - Familiar with Linux system - Server management skill
Ian Williams (577a/b)	Requirement Engineer / Prototyper	<ul style="list-style-type: none"> - Recognize requirements definition - Development system background (program language, system structure) - Win-win negotiation : know how to make people convince , and satisfy - Be able to use prototype tool
Kimberly Krause (577a/b)	IIV&V, Systems Requirements Engineer	<ul style="list-style-type: none"> - Skill for finding defects - Experience in assessing project plan - Generate reports - Plan for Results Chain actions <p>WikiWinWin</p>

Table 3.3

4. Approach

4.1 Monitoring and Control

Progress Report, Project plan

4.1.1 Closed Loop Feedback Control

Email, Wiki, Face to face talk

4.1.2 Reviews

<<Describe various kinds of review that your team is using to control your project. >>

4.2 Methods, Tools and Facilities

<< Describe methods, tools, facilities and their usage and provider that you used in your project>>

Tools	Usage	Provider
DART tools	Assesses and mitigates risks in the system development life cycle	USC
Red Ridge 3.0	Provides examples for user interface and system functionality, is helpful in the development of prototype	CSC
PEAR	Creates a framework and distribution system for reusable PHP components	Open source
<Tool>	<Usage>	<Tool Provider>

5. Resources

<< For Architected Agile, use COCOMOII for your calculation, for NDI-Intensive project, use COCOTS for your calculation

Identify the following information in order to estimate the software cost:

- Estimated CSCI577a Effort : X team members at X hrs/week for 12 weeks
- Estimated CSCI577b Effort : X team members at X hrs/week for 12 weeks
- Total estimated effort
- Budget information
- Project duration
- Component modules in your development project.
- Programming language used

Example of how to rate scale factors and cost drivers can be found at **ICM EPG> Task: Estimate Project Effort and Schedule using COCOMO II**

For most common mistakes in cost estimation, please go to **ICM EPG> Concept: Common Mistakes in COCOMOII Calculation**

You should provide rationale for every cost driver and scale factor of each module.

Note: Refer to Barry W. Boehm, et al, Software Cost Estimation With COCOMO II, Prentice all PTR, New Jersey, 2000 on how to estimate software cost . >>

Table 7: COCOMOII Scale Driver

Scale Driver	Value	Rationale
<Driver name>	<value>	<comments>
...

Table 8: COCOMOII Cost Driver

Cost Driver	Value	Rationale
<Driver name>	<value>	<comments>
...

<< Provide screenshot of your COCOMO II / COCOTS analysis result and interpret what does that mean to your project. More information can be found at ICM EPG> Task: Estimate Project Effort and Schedule using COCOMO II. >>